

RESEARCH NOTE

A NEW SPECIES OF THE SPIDER GENUS *ZELOTES* (ARANEAE, GNAPHOSIDAE) FROM CALIFORNIA

Recent sampling near Lake Skinner in southern California has produced the first known specimens of a small species of *Zelotes* that seems most closely related to *Zelotes nan-nodes* Chamberlin 1936, known only from southeastern Oregon, Nevada, and Utah (Platnick & Shadab 1983). We describe here this new species and provide some notes on its habitat and on other spiders taken in the same samples.

Lake Skinner is surrounded by undisturbed Riversidian coastal sage scrub (Westman 1983) in the Southwestern Riverside County Multispecies Reserve. The new species was collected in June from pitfall traps set in two sampling plots, approximately 600 m and 450 m, respectively, from the lake's northeast shore. The first site (on a north-facing, relatively steep slope), providing one male, has a very dense shrub cover, primarily of *Artemisia californica* Lesson (California sage) and secondarily of *Erigonum fasciculatum* Benthham (California buckwheat) and *Salvia mellifera* E. Greene (black sage) with *Salvia apiana* Jepson (white sage) interspersed among the major shrub components. The composition ratio of the three major shrubs is approximately 4:2:1. The soil consists of decomposed granite of relatively fine particle size mixed with clay; large exposed rocks are absent. The substrate is essentially bare, with sparsely distributed annual *Schismus* grass or, in less exposed areas, a thin lichen cover. Only near the bases of shrubs is any leaf litter present.

The second site (on a south-facing, gentle slope), providing the female and a second male, is vegetated by sparsely distributed shrubs, primarily *E. fasciculatum* and secondarily *A. californicum*, with a few scattered *S. mellifera* shrubs. The composition ratio of the two major shrubs is approximately 2.5:1. The soil here also consists of decomposed granite but has a coarser particle size and a much lower clay content, except in surface depressions

where clay has been deposited by runoff. Between the shrubs, the substrate is bare except for sparsely distributed *Schismus* grass and a few relatively large surface rocks. Leaf litter accumulates only beneath a few of the more closely grouped shrubs. Because of the hard ground surface, few burrows or surface openings of any kind were found; those that were noted opened in surface depressions or in the sandier sections of the plot.

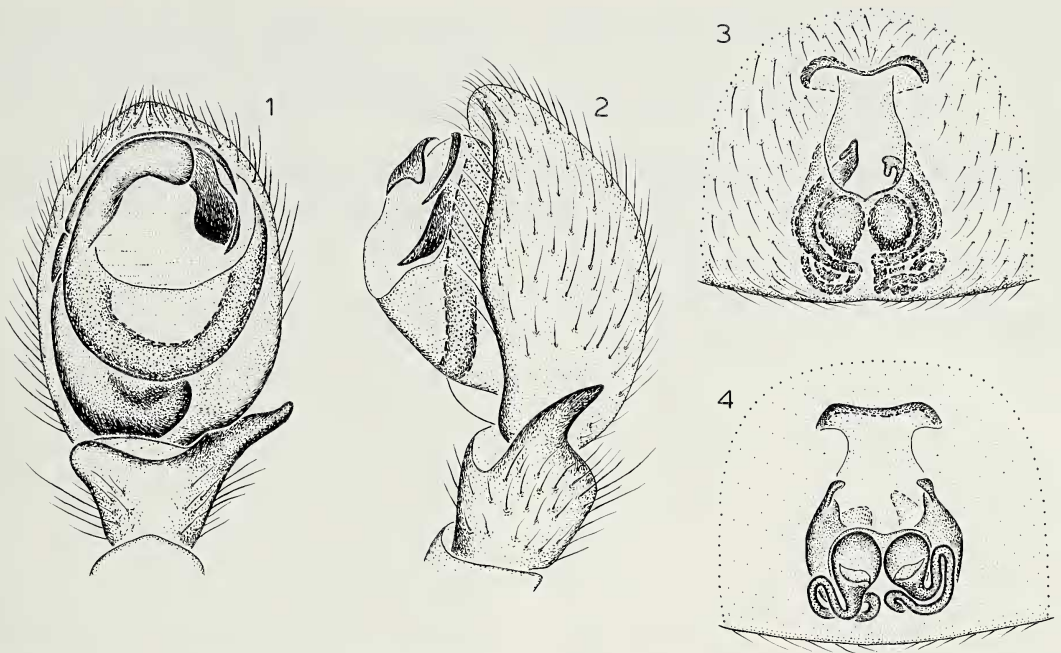
Three other gnaphosid species were collected in the June samples from both plots: *Callilepis gosoga* Chamberlin & Gertsch 1940, *Cesonia classica* Chamberlin 1924, and *Drassyllus insularis* (Banks 1900). The first site also provided *Drassyllus fractus* Chamberlin 1936 and (the probably introduced) *Zelotes nilicola* (O. P.-Cambridge 1874) in June samples, whereas the second site produced *Gnaphosa californica* Banks 1904, *Micaria jeanae* Gertsch 1942, and *Zelotes monachus* Chamberlin 1924. Over 70% of the *Blabomma sanctum* Chamberlin & Ivie 1937 specimens collected (from a possible 24 plots) were taken in December samples from the first site. The second site produced specimens of apparently undescribed species of *Blabomma*, *Aptostichus* (both in December samples), and *Psilochorus* (in June samples).

The format of the description follows that of Platnick & Shadab (1983). We thank Mohammad Shadab of the American Museum of Natural History for help with the illustrations.

Zelotes skinnerensis new species

Figs. 1-4

Types.—Male holotype and female allotype taken in pitfall traps at an elevation of ca. 470 m in a site 450 m from the NE shoreline of Lake Skinner, Southwestern Riverside County Multispecies Reserve, Riverside County, California (♂, 13-16 June, 1998; ♀ 6-10 June 1998, both by T.R. Prentice), de-



Figures 1-4.—*Zelotes skinnerensis* new species. 1, Left male palp, ventral view; 2, Same, retrolateral view; 3, Epigynum, ventral view; 4, Same, dorsal view.

posited in American Museum of Natural History courtesy of Metropolitan Water District of Southern California and R. Redak (Dept. of Entomology, Univ. of California, Riverside).

Etymology.—The specific name refers to the type locality.

Diagnosis.—This species, with its transverse embolus extending across the distal edge of the male palpal bulb, belongs to the *laccus* subgroup of the genus, and is likely to be confused only with what appears to be its sister species, *Z. nannodes*. Males have the distal edge of the terminal apophysis rounded (Fig. 1), whereas in *Z. nannodes* the prolateral edge of the terminal apophysis bears a sharply pointed projection (Platnick & Shadab 1983: figs. 231, 235). Females of the new species have a longer median epigynal plate (Fig. 3) than that found in females of *Z. nannodes* (Platnick & Shadab 1983: fig. 233); the single female available for study has what appear to be fragments of the male embolus extending from the epigynal openings and partially obscuring the median epigynal plate.

Description.—*Male*: Total length 2.49, 2.65. Carapace 1.08, 1.14 long, 0.81, 0.82 wide. Femur II 0.64, 0.66 long. Eye sizes and

interdistances: AME 0.03, ALE 0.05, PME 0.04, PLE 0.05; AME-AME 0.04, AME-ALE 0.01, PME-PME 0.05, PME-PLE 0.00, ALE-PLE 0.05; MOQ length 0.12, front width 0.10, back width 0.12. Embolus shorter than in *Z. nannodes*, without prolateral hump (Figs. 1, 2). Leg spination: tibia IV p1-0-1; metatarsi: III p0-2-2, v2-0-0, r0-1-2; IV p0-2-2.

Female: Total length 3.30. Carapace 1.14 long, 0.88 wide. Femur II 0.67 long. Eye sizes and interdistances: AME 0.03, ALE 0.05, PME 0.05, PLE 0.05; AME-AME 0.04, AME-ALE 0.01, PME-PME 0.04, PME-PLE 0.04, ALE-PLE 0.04; MOQ length 0.11, front width 0.10, back width 0.14. Epigynum with triangular median plate longer than in *Z. nannodes* (Figs. 3, 4). Leg spination: tibiae: III v1r-2-2; IV p1-0-1; metatarsi: I v0-0-0; II v1r-0-0; III p0-2-2, v2-0-0, r0-1-2; IV p0-2-2.

Other material examined.—One male taken in pitfall trap at an elevation of ca. 480 m in a site 600 m from the NE shoreline of Lake Skinner, Southwestern Riverside County Multiplespecies Reserve, Riverside County, California (6-10 June 1998, T.R. Prentice), deposited in University of California, Riverside.

Distribution.—Known only from the type

locality in Riverside County, southern California.

LITERATURE CITED

- Platnick, N.I. & M.U. Shadab. 1983. A revision of the American spiders of the genus *Zelotes*. Bull. American Mus. Nat. Hist., 175:97-192.
- Westman, W.E. 1983. Xeric Mediterranean-type shrubland associations of Alta and Baja California and the community/continuum debate. Vegetatio, 52:3-19.
- Norman I. Platnick:** Division of Invertebrate Zoology, American Museum of Natural History, Central Park West at 79th Street, New York, New York 10024 USA
- Thomas R. Prentice:** Department of Entomology, University of California, Riverside, California 92521 USA

Manuscript received 4 December 1998, revised 15 March 1999.